

**What is claimed is:**

1. A current driving apparatus for active matrix organic light emitting diode (AMOLED), which utilizes two abutting sub-pixels (an odd sub-pixel and an even sub-pixel). The driving apparatus of each sub-pixel  
5 includes:
  - odd line enable for the odd sub-pixels;
  - even line enable for the even sub-pixels;
  - a data line shared by the odd sub-pixels and the even sub-pixels;
  - a scan line;
  - 10 a supply line;
  - a common line;
  - a writing element with the source connects to the data line;
  - a switching element with the gate connects to the gate of the writing element; and the source connects to the data line;
  - 15 a driving element with the gate connects to the drain of the writing element; and the source connects to the supply line;
  - a control element with the gate connects to the scan line; and the source connects to the odd line enable (even line enable); and the drain connects to the gate of the switching element;
  - 20 a storage element with two ends, one end connects to the source of the driving element; and the other end connects to the connection of the gate of the driving element and the drain of the writing element; and
  - a light emission element with two ends, one end is the positive electrode that connects to the drain of the driving element; and the  
25 other end is the negative electrode that connects to the common line.

2. As the current driving apparatus for active matrix organic light emitting diode of claim 1, wherein the writing element is a thin film transistor.
3. As the current driving apparatus for active matrix organic light emitting diode of claim 1, wherein the switching element is a thin film transistor.
- 5 4. As the current driving apparatus for active matrix organic light emitting diode of claim 1, wherein the driving element is a thin film transistor.
5. As the current driving apparatus for active matrix organic light emitting diode of claim 1, wherein the control element is a thin film transistor.
6. As the current driving apparatus for active matrix organic light emitting diode of claim 1, wherein the storage element is a storage capacitor.
- 10 7. A current driving method for an active matrix organic light emitting diode, which includes:

dividing a picture frame into two periods during driving, the two periods being a write period and a display period;

- 15 raising the potential of the common line to a high potential in the write period to stop light emission elements of a panel from displaying a previous picture frame, and proceed data current programmed operation from the first scan line of the existing picture frame, and the potential difference between two ends of the storage element offers
- 20  $V_{sg}$  (potential difference between the source and the gate) that is required for the driving element when the current passing through the driving elements equals the data current; and

- returning the potential of the common line to zero (GND) so as to enter the display period after each scan line has completed the write period; and to allow a current flowing through light emission elements
- 25

of each pixel on the panel to equal the programmed data current; thereby the light emission elements display at a brightness required for the picture.